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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,713	07/14/2003	Yoshiaki Ohbayashi	030731	4191
23850	7590	02/07/2005	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006			KANG, JULIANA K	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/617,713	<b>Applicant(s)</b> OHBAYASHI ET AL.	
	<b>Examiner</b> Juliana K. Kang	<b>Art Unit</b> 2874	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Applicant's communication filed on December 7, 2004 has been carefully studied by the Examiner. The arguments advanced therein, considered together with the amendments made to the claims, are persuasive and the rejections based upon prior art made of record in the previous office action are withdrawn. In view of further search, however, and the consequent discovery of a previously uncited prior art document, a new rejection is applied to the pending claims. The late discovery of the newly applied reference is sincerely regretted. This action is **not** made final.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takaoka et al (U.S. Patent 6,481,902 B2).

Takaoka et al disclose an optical connector socket comprising a body (10a) having a socket-side optical device (14, for at least either receiving or emitting light [see column 7 lines 1-3]) installed therein and an insertion section to which a connected optical connector plug (13a) is inserted, a cover (10b) that is covered on the body and has an opening section communicating with the insertion section, a shutter (11) arranged between said body and said cover, for opening and closing said opening section of the cover (see column 7 lines 3-14, column 9 lines 9-25 and Fig. 5a), the

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shutter opening inwardly into said body, and an elastic member (15) that always elastically urge the shutter in a closing direction, wherein the opening section is set to have an outside dimension greater than the outside dimension of the optical connector plug inserted to the cover (this has to be true in Takaoka et al since the connector plug is inserted through the opening of the cover). However, Takaoka et al do not explicitly states that the opening section of the cover is set to have an outside dimension smaller than the outside dimension of the shutter. Takaoka et al further teach that using shutter protects the device from dust and other foreign objects and also teach having no apertures left when the shutter is closed (see column 10 lines 1-4). Having the shutter that is larger than the opening would ensure the no apertures left when the shutter is closed providing better protection against dust and other foreign objects. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the opening section that is smaller than the shutter in Takaoka et al to provide improved protection from any foreign objects.

4. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takaoka et al (U.S. Patent 6,481,902 B2) and further in view of Seto et al (U.S. Patent 6,267,513 B1).

As described above Takaoka et al teach the claimed invention including the shutter that is attached to the cover and a guide projection on the plug member provided at the inside of the insertion section of the body (see Fig. 3b). However, Takaoka et al do not explicitly state that the guiding projection becomes narrower toward the backside of the insertion section. Seto et al teach an optical connector

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having a plug, a receptacle and a tapered guide projection with a locking recess section (30) that engages with a locking convex section (15) provided on an outer surface of the plug (see Fig. 11). Seto et al's connector structure provides optimum coupling and reduces the wear of the inner surface of the projection (see column 2 lines 23-49) and column 4 lines 28-46). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the tapered guiding projection of Seto et al in Takaoka et al to provide optimum optical coupling structure.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juliana K. Kang whose telephone number is (571) 272-2348. The examiner can normally be reached on Mon. & Fri. 10:00-6:00 and Tue. & Thur. 10:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rod Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 2/3/05  
**JULIANA KANG**  
**PRIMARY EXAMINER**